

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application:

1-31 (Canceled)

32. (Currently Amended) A method for detecting a cell in a subject comprising:

- a. administering to the subject a cell that is labeled with a fluorocarbon imaging reagent; and
- b. examining at least a portion of the subject by ^{19}F magnetic resonance imaging ~~a nuclear magnetic resonance technique~~, thereby detecting [[a]] the cell that is labeled with the fluorocarbon imaging reagent ~~[[a]] the~~ [[cell]] in the subject.

33-44. (Cancelled)

45. (Currently Amended) An *ex vivo* labeled cellular formulation comprising:

- a. a cell; and
- b. a fluorocarbon imaging reagent that is detectable by ^{19}F magnetic resonance imaging and that is associated with the cell.

46-56. (Cancelled)

57. (Currently Amended) A method for detecting transplanted cells in a transplant recipient comprising:

- a. administering cells for transplant to a transplant recipient, at least a portion of which cells for transplant are labeled with a fluorocarbon imaging reagent;
- b. examining at least a portion of the subject by ^{19}F magnetic resonance imaging ~~a nuclear magnetic resonance technique~~, thereby detecting [[a]] the cells that are labeled with the fluorocarbon imaging reagent ~~[[a]] the~~ [[cell]] in the subject.

58-68. (Canceled)

69. (Previously Presented) The method of claim 32, further comprising contacting the cell *ex vivo* with a fluorocarbon imaging reagent under conditions such that the fluorocarbon imaging reagent becomes associated with the cell prior to step a.

70. (Previously Presented) The method of claim 32, wherein the fluorocarbon imaging reagent is a perfluoropolyether.

71. (Previously Presented) The method of claim 32, wherein the cell is contacted with the fluorocarbon imaging reagent in the presence of an uptake enhancing reagent.

72. (Previously Presented) The method of claim 71, wherein the uptake enhancing reagent comprises a cationic lipid.

73. (Previously Presented) The method of claim 32, wherein at least a portion of the fluorocarbon imaging reagent is internalized into the cell.

74. (Previously Presented) The method of claim 32, wherein at least a portion of the fluorocarbon imaging reagent is associated with the extracellular surface of the cell.

75. (Previously Presented) The method of claim 32, wherein the fluorocarbon imaging reagent is conjugated to a cellular targeting moiety.

76. (Previously Presented) The method of claim 75, wherein the cellular targeting moiety comprises an antibody that binds to an epitope that is exposed to the extracellular milieu.

77. (Previously Presented) The method of claim 32, wherein the fluorocarbon imaging reagent is conjugated to an internalization moiety.

78. (Previously Presented) The method of claim 32, wherein the cell is a mammalian cell.

79. (Previously Presented) The method of claim 32, wherein the cell is a cell of the immune system.

80. (Previously Presented) The method of claim 32, wherein the cell is a dendritic cell.

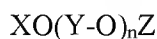
81. (Previously Presented) The method of claim 32, wherein the fluorocarbon imaging reagent is formulated as an emulsion.

82. (Previously Presented) The method of claim 32, wherein the emulsion comprises particles having a mean diameter of between 30 and 500 nm.

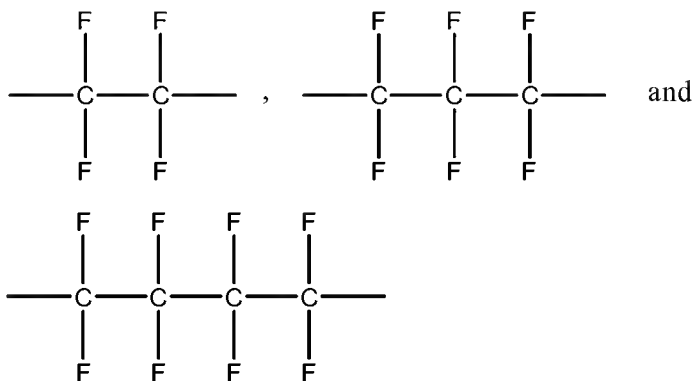
83. (Previously Presented) The method of claim 32, wherein the fluorocarbon imaging reagent is a perfluoro-crown ether.

84. (Previously Presented) The method of claim 83, wherein the imaging reagent is a perfluoro-15-crown-5-ether.

85. (Previously Presented) The method of claim 32, wherein the fluorocarbon is a perfluorinated polyether having an average formula:



wherein Y is selected from the group consisting of:



wherein n is an integer from 8 to 20; wherein X and Z are the same and are selected from the group consisting of perfluoroalkyls, perfluoroethers, fluoroalkyls terminated with fluoroacyl, carboxyl, amide or ester, methylols, acid chlorides, amides, amidines, acrylates and esters.

86. (Previously Presented) The method of claim 32, wherein the imaging reagent comprises an additional functional moiety.

87. (Previously Presented) The method of claim 86, wherein the additional functional moiety is a detection moiety.

88. (Previously Presented) The method of claim 87, wherein the detection moiety is selected from the group consisting of: a fluorescent detection moiety and a PET detection moiety.